

5
**SYSTEM AND METHOD FOR OPTIMAL SHORT MESSAGE
SERVICE (SMS) ENCODING IN A WIRELESS
COMMUNICATIONS DEVICE**

5
ABSTRACT OF THE INVENTION

A system and a method are provided for optimal Short Message System (SMS) encoding in a wireless communications device having SMS capabilities. The system includes an optimizing subsystem and an encoding subsystem. The optimizing subsystem accepts an SMS message, identification of available encoding formats, and information regarding wireless device resource encoding requirements, such as memory usage, for the available encoding formats. The optimizing subsystem evaluates the characters in the SMS message to identify which of the available encoding formats are usable for encoding the characters, 10 determines a memory usage requirement, and selects, as the optimal encoding format, the usable encoding format having the lowest memory usage. The optimizing subsystem supplies an optimizing signal identifying the optimal encoding format. The encoding subsystem accepts the SMS message and the optimizing signal, and encodes the message in 15 the optimal encoding format. The encoding subsystem supplies the encoded SMS message to a wireless device memory circuit. The memory circuit supplies the stored SMS message for presentation on a user display or transmission by a transceiver.

25